

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A nickel alloy sputtering target for forming a film for preventing tin (Sn) diffusion, comprising a sputtering target body of a predetermined diameter and a predetermined thickness adapted to form a thin film via magnetron sputtering, said sputtering target consisting body being made of a composition of 1 to 30 at% atomic percent copper (Cu); 2 to 25 at% atomic percent of at least one element selected from among a group consisting of vanadium (V), chromium (Cr), aluminum (Al), silicon (Si), and molybdenum (Mo); and remnant nickel (Ni) and unavoidable impurities.

Claim 2 (currently amended): The nickel alloy sputtering target according to claim 1, wherein the copper in said sputtering target body exists in a solid solution, and wherein the nickel alloy is formed by adding said at least one element selected from among V, Cr, Al, Si, and Mo to a Ni-Cu solid solution.

Claim 3 (canceled).

Claim 4 (currently amended): A nickel alloy thin film formed between a solder bump and a substrate layer or a pad, said nickel alloy thin film comprising 1 to 30 at% atomic percent of copper (Cu); 2 to 25 at% atomic percent of at least one element selected from among a group

consisting of vanadium (V), chromium (Cr), aluminum (Al), silicon (Si), titanium (Ti) and molybdenum (Mo); and remnant nickel (Ni) and unavoidable impurities.

Claim 5 (currently amended): The nickel alloy thin film formed between a solder bump and a substrate layer or a pad according to claim 4, wherein the copper exists in a solid solution in said thin film, and wherein the nickel alloy is formed by adding said at least one element selected from among V, Cr, Al, Si, Ti and Mo to a Ni-Cu solid solution.

Claims 6-11 (canceled).

Claim 12 (previously presented): A nickel alloy thin film according to claim 4, wherein the solder bump is a Pb-free Sn solder or a Sn solder.

Claim 13 (currently amended): A nickel alloy thin film according to claim 12, further comprising a Cu-Sn an intermetallic compound layer between the solder bump and the substrate layer or pad, said intermetallic compound layer consisting of Cu and Sn.

Claim 14 (previously presented): A nickel alloy thin film according to claim 13, wherein said Cu-Sn intermetallic compound layer is of a thickness of 0.01 to 5 μ m.

Claim 15 (currently amended): A nickel alloy thin film according to claim 4, further comprising a Cu-Sn an intermetallic compound layer between the solder bump and the substrate layer or pad, said intermetallic compound layer consisting of Cu and Sn.

Claim 16 (previously presented): A nickel alloy thin film according to claim 15, wherein said Cu-Sn intermetallic compound layer is of a thickness of 0.01 to 5 μ m.

Claim 17 (canceled).

Claim 18 (currently amended): The nickel alloy sputtering target according to claim 1, further comprising wherein said composition of said sputtering target body includes titanium (Ti), wherein a total amount of Ti together with said at least one element selected from among V, Cr, Al, Si and Mo is 2 to 25 at% atomic percent.

Claim 19 (currently amended): A nickel alloy sputtering target, consisting of: a sputtering target body of a predetermined diameter and a predetermined

thickness adapted to form a thin film via magnetron sputtering;
said sputtering target body being made of a composition consisting of 1 to 30 at% atomic percent of copper (Cu); 2 to 25 at% atomic percent of at least one an additional element selected from among a group consisting of vanadium (V), chromium (Cr), aluminum (Al), silicon (Si), and molybdenum (Mo); and remnant nickel (Ni);

the copper in said sputtering target body existing in a solid solution; and said sputtering target body having a single phase metallographic structure and an average grain size of 100 μ m or less; and

each of the copper, the at least one additional element, and the nickel of said sputtering target being of a purity of at least 99.9% (3N).

Claim 20 (canceled).

Claim 21 (new): A nickel alloy sputtering target according to claim 19, wherein said additional element is chromium (Cr), aluminum (Al), silicon (Si), or molybdenum (Mo).

Claim 22 (new): A nickel alloy sputtering target according to claim 19, wherein said additional element is aluminum (Al), silicon (Si), or molybdenum (Mo).

Claim 23 (new): A nickel alloy sputtering target according to claim 22, wherein said predetermined thickness of said sputtering target body is 10mm.

Claim 24 (new): A nickel alloy sputtering target according to claim 1, wherein said at least one element is chromium (Cr), aluminum (Al), silicon (Si), or molybdenum (Mo).

Claim 25 (new): A nickel alloy sputtering target according to claim 1, wherein said at least one element is aluminum (Al), silicon (Si), or molybdenum (Mo).

Claim 26 (new): A nickel alloy sputtering target according to claim 1, wherein said predetermined thickness of said sputtering target body is 10mm.

Claim 27 (new): A nickel alloy sputtering target according to claim 1, wherein said predetermined diameter of said sputtering target body is 80mm.

Claim 28 (new): A nickel alloy thin film according to claim 4, wherein said at least one element is chromium (Cr), aluminum (Al), silicon (Si), or molybdenum (Mo).

Claim 29 (new): A nickel alloy thin film according to claim 4, wherein said at least one element is aluminum (Al), silicon (Si), or molybdenum (Mo).